

ABSTRACT OF THE DISCLOSURE

The present invention provides novel glutathione-dependent formaldehyde dehydrogenase that makes possible quantitative measurement of formaldehyde by cycling reaction, and a determination method of formaldehyde and biological components, such as creatinine, creatine, homocysteine and the like, which produces formaldehyde as a reaction intermediate. In addition, the present invention provides a reagent kit for the above-mentioned determination method.

10 The present invention provides a novel determination method of a homocysteine using transferase utilizing homocysteine and other compound as a pair of substrates. Particularly, the present invention provides a determination method of homocysteine which includes bringing betaine-homocysteine
15 methyltransferase and dimethylglycine oxidase into contact with a sample and measuring produced hydrogen peroxide or formaldehyde. Moreover, the present invention provides novel dimethylglycine oxidase stable to thiol compound, which is suitably used for the measurement. The present
20 invention provides a reagent kit used for any of the above-mentioned determination methods of homocysteines.